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MAY 11 2005
SOUTHWEST REGIONAL OFFICE

FORM S - SECTION 3 LAND APPLICATION

Permit No: MO-0108162 Report Period: Calendar Year 2004

Facility Name: Rockaway Beach W.W.T.P.

3.00 Land Application - General

This section is based on Missouri Water Pollution Control Permit Standard Conditions Part III dated August 15, 1994. For a copy, contact the department at (314) 751-6825.

Complete this section if sludge or biosolids were land applied for beneficial use by permittee or by contract hauler under permittee authority.

3.01 19 dry tons of sludge applied during the report period.

2.13 average percent solids

If less than 12% solids: _____ total gallons for year

If 12% solids or greater: _____ cubic yards for year.

3.02 Sludge storage provided: 200,000 GALLONS cubic feet; _____ days of storage.

Number of days each month that sludge was land applied:

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
			8		3	1	10	2	2	2	3

3.03 Who applies your sludge?

Permittee personnel ✓ Yes ___ No

Contract person ___ Yes ___ No

Other, describe: _____

3.10 Applicability (Per Section H of Part III Standard Conditions)

3.11 Are there any land application sites farther than 20 miles from the wastewater treatment facility? ___ Yes ✓ No

If yes, a separate permit is required for those sites; indicate permit numbers or submit new permit application for each site:

Permit numbers: _____

3.12 Are any industrial sludges land applied by the permittee?

___ Yes ✓ No If yes, complete the following: Permit No: _____;

Type of sludge _____ SIC Code _____;

3.13 Are alternate limits or exceptions listed in the Special Conditions section of the permit?

___ Yes ✓ No If yes, attach explanation sheet.

3.14 Is sludge received from any out-of-state generators?

If this sludge is handled separately, complete separate Sections 2 and 3 of form S for the out-of state sludge.

11. Biosolids storage	✓ Yes	___ No
12. Application rates	✓ Yes	___ No
13. Application equipment	✓ Yes	___ No
14. Soil pH limitations	✓ Yes	___ No
15. Soil phosphorus limitations	✓ Yes	___ No
16. Soil depth limitations	✓ Yes	___ No
17.. Record keeping	✓ Yes	___ No

If No, attach sheet with explanation.

3.33 Class A Sludge (Per WQ 424 guide - Biosolids Standards for pathogens and vectors)

Does the sludge meet Class A pathogen reduction? ___ Yes ✓ No

Has Class A sludge been applied to public use sites? ___ Yes ✓ No

If yes to the second question in 3.33, contact DNR.

3.40 Operational Standards for Class B Biosolids (see WQ 424)

___ Class B pathogen reduction requirements were met by either fecal coliform limits under section 2D or a PSRP listed in WQ 424, Table 2. Attach supporting data and indicate process option used.

___ Class B pathogen requirements not currently met; Attach explanation and schedule of compliance.

3.41 Vector Attraction reduction requirements were met. ✓ Yes ___ No

3.50 Monitoring Frequency (Per WQ 424 - Monitoring Requirements for Biosolids Land Application)

Attach a summary of the monitoring results on Form SA

3.51 Sludge testing for metals was performed:

✓ once/year ___ once/6 months

___ once/quarter ___ once/month

___ once/week ___ once/100 dry tons removed from lagoon.

___ Other, specify _____

3.52 Permittee is required to have an approved pretreatment program.

___ Yes ✓ No If yes attach Form SB.

3.53 Total Solids testing was performed at least once per day during land application periods?

✓ Yes ___ No If No, attach explanation.

3.54 Nitrogen testing was performed per the frequency in WQ 423. This frequency is 1 per year.

✓ Yes ___ No If No, attach explanation.

3.55 Total phosphorus and total potassium were tested at the same laboratory required for metals as indicated in WQ 423.

✓ Yes ___ No If No, attach explanation.

3.56 Soil testing for pH and Cation Exchange Capacity (CEC) and available phosphorus has been conducted within the last five years.

✓ Yes ___ No If No, attach explanation.

3.57 Was any additional sludge or soil testing required under the special conditions section of your water pollution control (NPDES) permit?

___ Yes ✓ No If yes, attach a summary using Form SB.

Permit No: MD-0108167 Report Period: Calendar Year 2004

Facility Name: Rockawalking Beach WWTP.

3.60 CERTIFICATION FOR LAND APPLICATION

Check all that apply.

I certify under penalty of law that:

✓ records on testing, and pollutant loadings, as listed above in Section 2, have been kept in accordance with 40 CFR 503.17.

✓ the management practices, as listed above in Section 2, have been met in accordance with 40 CFR 503.14.

✓ the Class B pathogen requirements and the site restrictions, as listed above in Section 2, have been met in accordance with 40 CFR 503.15 and 503.32.

✓ one of the vector attraction requirements, as listed above in Section 2, have been met in accordance with 40 CFR 503.15 and 503.33.

This determination has been made under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information used to determine these requirements have been met. I am aware that there are significant penalties for false certification, including the possibility of fine and imprisonment.

Edwin K. Godley
Name

Plant operator
Official Title

Edwin K. Godley
Signature

Apr. 27, 2005
Date

CONSULTING ANALYTICAL SERVICES INTERNATIONAL, INC.
2804 EAST BATTLEFIELD • SPRINGFIELD, MISSOURI 65804-4014 • 417.882.1017 • 417.882.1018

CITY OF ROCKAWAY BEACH
Re: CaSi File/Case/Log: 0289/043511/1734
Sludge Sample Collected: 12-20-04, 10:00-10:30
Sample Received: 12-20-04, 13:40

January 20, 2005

PARAMETER	METHOD	WET WEIGHT VALUE mg/kg	DRY WEIGHT VALUE mg/kg	DRY WEIGHT VALUE lbs/ ton
ARSENIC, total	EPA 200.7	<0.1	<4.7	<0.009
CADMIUM, total	EPA 200.7	<0.01	<0.5	<0.001
CHROMIUM, total	EPA 200.7	0.13	6.10	0.01
COPPER, total	EPA 200.7	3.19	150	0.30
LEAD, total	EPA 200.7	0.18	8.45	0.02
MERCURY, total	EPA 245.1	<0.1	<4.7	<0.009
MOLYBDENUM, total	EPA 200.7	0.10	4.69	0.009
NICKEL, total	EPA 200.7	0.16	7.51	0.02
SELENIUM, total	EPA 200.7	<0.1	<4.7	<0.009
ZINC, total	EPA 200.7	20.1	944	1.9
TOTAL KJELDAHL NITROGEN	EPA 351.3	943	44300	89
AMMONIA as NITROGEN	EPA 350.2	31.7	1490	3
ORGANIC NITROGEN	Calculation	911	42800	86
NITRATE/NITRITE as NITROGEN	EPA 353.3	1.80	84.5	0.17
TOTAL PHOSPHORUS as P	EPA 365.2	401	18800	38
TOTAL POTASSIUM	EPA 200.7	203	9530	19
PLANT AVAILABLE NITROGEN	Calculation	206	9680	19

PARAMETER	METHOD	PERCENT
PERCENT SOLIDS	EPA 160.3	2.13
VOLATILE PERCENT OF SOLIDS	Calculation	84.51
PERCENT ASH	EPA 160.4	0.33

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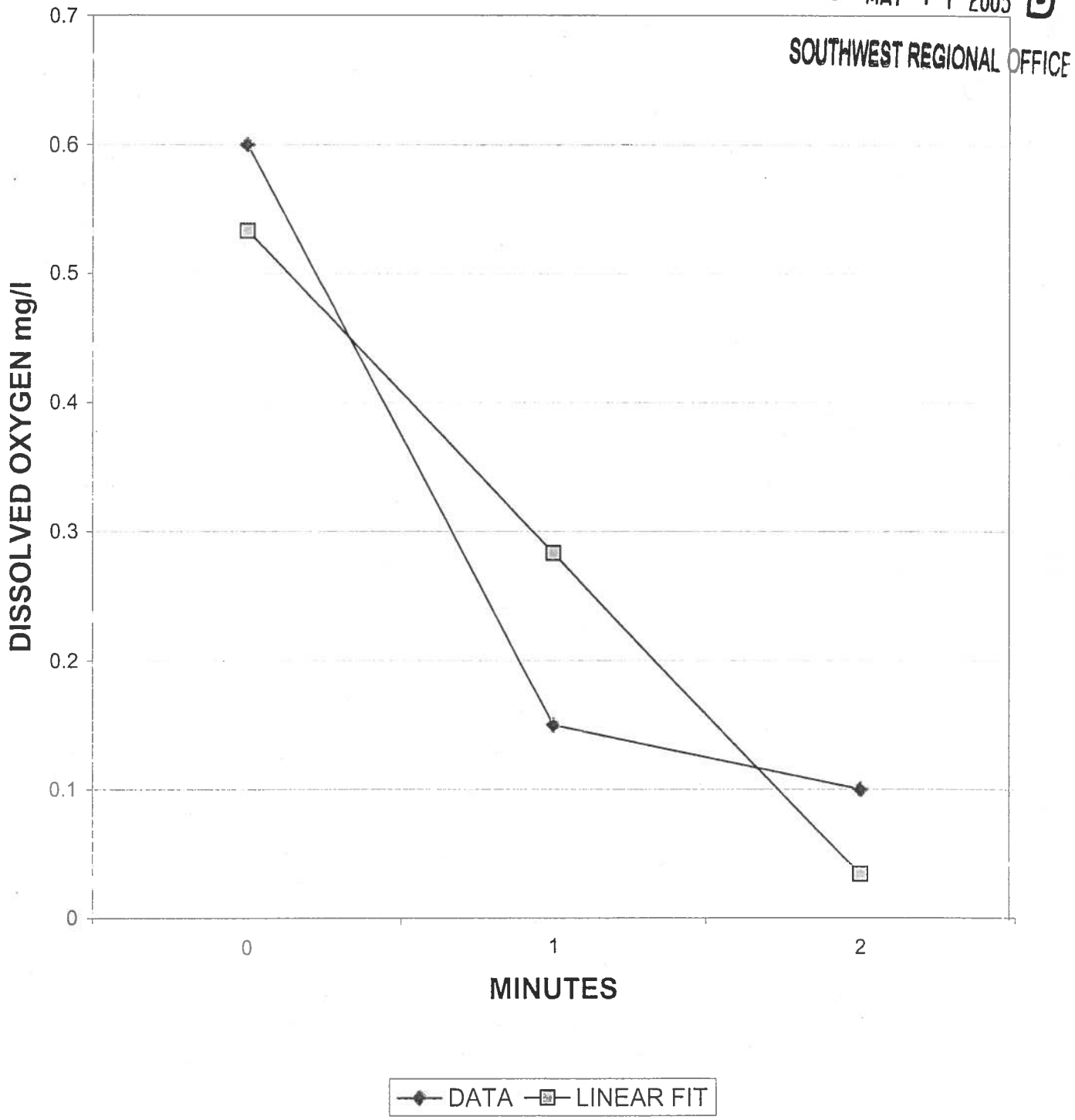
Specific Oxygen Uptake Rate (SOUR)

City of Rockaway Beach 0289/043511/1734
< 0.60 milligrams/gram/hour



CaSi
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CITY OF ROCKAWAY BEACH
Re: CaSi File/Case/Log: 0289/043460-3468/1732
Sludge Sample Collected: 12-15-04, 11:00, 11:05, 11:15, 11:20, 11:35, 11:45, 11:50
Sample Received: 12-15-04, 13:10

PARAMETER	METHOD	WET WEIGHT CFU/g	DRY WEIGHT CFU/g
FECAL COLIFORM Geometric Mean of 7 Samples	SM 9222 D	42200	4060000

PARAMETER	METHOD	PERCENT
PERCENT SOLIDS	EPA 160.3	1.04

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CITY OF ROCKAWAY BEACH
Re: CaSi File/Case/Log: 0289/043512/1734
Samples Received: 12-20-04, 13:40

CONTROL NUMBER		043512	FLAG	UNITS	ANALYSIS DATE	ANALYSIS TIME
SAMPLE DESCRIPTION		EFFLUENT 12-20-04 11:45				
PARAMETER	METHOD					
TOTAL PHOSPHORUS as P	EPA 365.2	1.74		mg/l	01-05-05	14:04

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CITY OF ROCKAWAY BEACH
Re: CaSi File/Case/Log: 0289/043460-3468/1732
Samples Received: 12-15-04, 13:10

December 27, 2004

CONTROL NUMBER		043467	043468	FLAG	UNITS	ANALYSIS DATE	ANALYSIS TIME
SAMPLE DESCRIPTION		EFFLUENT 12-15-04 11:20	INFLUENT 12-15-04 11:00				
PARAMETER	METHOD						
TOTAL PHOSPHORUS as P	EPA 365.2	2.25	4.54		mg/l	12-23-04	16:35

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER POLLUTION CONTROL PROGRAM

FORM S - DOMESTIC SLUDGE REPORTING

SECTION 1 - GENERAL INFORMATION

RECEIVED
MAY 18 2006
SOUTHWEST REGIONAL OFFICE

REPORTING PERIOD: (YEAR) 2005

FACILITY NAME: Rockaway Beach W.W.T.P.

CITY NAME: City of Rockaway Be

PERMIT NUMBER: MO-0108162

COUNTY NAME: Taney

Instructions: See Instruction Sheet for directions.

1. Sludge Production, including sludge received from others:

19.3 Actual Dry Tons/Year 620 Actual Population Equivalent

2. Sludge Treatment:

____Anaerobic Digester	____Aerobic Digester	____Composting
X Storage Tank	____Air or Heat Drying	
____Lime Stabilization	____Other, Describe.	

3. Sludge Use or Disposal: Complete the rest of this form only for the sections applicable to your method of sludge and biosolids use or disposal.

X	**All Permitees**	**Complete Section 1**
X	Land Application (LA)	Complete Sections 2 & 3
___	Contract Hauler (CH) > 150 PE	Complete Sections 2 & 4
___	Contract Hauler (CH) < 150 PE	Complete Section 4
___	Hauled to another Treatment Facility (HT)	Complete Section 4
___	Solid Waste Landfill (LF)	Complete Section 4
___	Sludge Disposal Lagoon (SD)	Complete Section 5
___	Incineration (IN)	Complete Section 6
___	Sludge Hauled to Incinerator (IO)	Complete Section 6

4. Certification: I certify under penalty of law that the information contained in this report and attachments are true and correct. This determination has been made under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information used to determine these requirements have been met. I am aware that there are significant penalties for false certification, including the possibility of fine and imprisonment.

Edwin K. Godley
Print Name

Plant operator
Official Title

Edwin K. Godley
Signature.

Apr. 25, 2006
Date

417-561-4424
Phone

(RV 7-1-97)

C. POLLUTANT LIMITS

POLLUTANT	AV. SAMPLE CONCENTRATIONN mg/kg DRY WGHT	LOW METAL CONCENTRATION mg/kg DRY WGHT	CEILING CONCENTRATION mg/kg DRY WGHT
Arsenic	<3.4	41	75
Cadimium	0.68	39	85
Chromium	7.17	1,200	3,000
Copper	189	1,500	4,300
Lead	13.0	300	840
Mercury	<3.4	17	57
Molybdenum	5.46	18	75
Nickel	6.14	420	420
Selenium	<3.4	36	100
Zinc	679	2,800	7,500

D. PATHOGENS

Pathogen testing is required for all sludges to show operational compliance, including sludges treated by a PSRP approved method.

The geometric mean of the density of fecal coliform is less than 2,000,000 Most Probable Number (MPN) or Colony Forming Units (CFU) per gram of total solids (dry weight basis) for each group of 7 samples:

✓ Yes ___ No Sampling frequency 1 per year

Geometric mean per gram of total solids for each group of 7 samples was:

53900 MPN/CFU Sample date 12/29/05

___ MPN/CFU Sample date ___

___ MPN/CFU Sample date ___

E. VECTOR REDUCTION PROCESSES

___ 38 percent volatile solids reduction (attach calculations).

✓ SOUR test, mg O_2/hr/g (attach graph and calculations).

___ Other. Attach explanation.

FORM S - SECTION 3 LAND APPLICATION

Permit No: MO-0109169 Report Period: Calendar Year 2005

Facility Name: Rockaway Beach W.W.T.P.

3.00 Land Application - General

This section is based on Missouri Water Pollution Control Permit Standard Conditions Part III dated August 15, 1994. For a copy, contact the department at (314) 751-6825.

Complete this section if sludge or biosolids were land applied for beneficial use by permittee or by contract hauler under permittee authority.

3.01 19.3 dry tons of sludge applied during the report period.

8.93 average percent solids

If less than 12% solids: _____ total gallons for year

If 12% solids or greater: _____ cubic yards for year.

3.02 Sludge storage provided: 200,000 gallons cubic feet; _____ days of storage.

Number of days each month that sludge was land applied:

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
			3		4	5	3	3	3	3	

3.03 Who applies your sludge?

Permittee personnel ✓ Yes ___ No

Contract person ___ Yes ___ No

Other, describe: _____

3.10 Applicability (Per Section H of Part III Standard Conditions)

3.11 Are there any land application sites farther than 20 miles from the wastewater treatment facility? ___ Yes ✓ No

If yes, a separate permit is required for those sites; indicate permit numbers or submit new permit application for each site:

Permit numbers: _____

3.12 Are any industrial sludges land applied by the permittee?

___ Yes ✓ No If yes, complete the following: Permit No: _____;

Type of sludge _____ SIC Code _____;

3.13 Are alternate limits or exceptions listed in the Special Conditions section of the permit?

___ Yes ✓ No If yes, attach explanation sheet.

3.14 Is sludge received from any out-of-state generators?

If this sludge is handled separately, complete separate Sections 2 and 3 of form S for the out-of state sludge.

FORM S - SECTION 2 LABORATORY RESULTS

FORM SA

SLUDGE MONITORING RESULTS FOR METALS, NUTRIENTS, PATHOGENS AND VECTORS

Permit No: MO- 0108168 Report Period: Calendar Year 2005

Facility Name: Rockaway Beach WWTP.

Use this form to report sludge monitoring required under Missouri water pollution control permit (NPDES) Standard Conditions Part III dated 15, August, 1994. For a copy, contact the department at (314) 751-6825.

If the Facility has a design population equivalent (P.E.) of 150 or less, treat the sludge generated as septage and consequently, no testing is required. See WQ 422 guide, *Land application of Septage*, for further guidance.

Report all results on dry weight basis.

Attach copies of all laboratory results for the items below.

A. MINIMUM MONITORING LIST FOR ALL PERMITTEES

PARAMETER	UNITS	AVERAGE	MINIMUM	MAXIMUM	NUMBER OF SAMPLES
Total Solids	%	2.93			
Total Arsenic	mg/kg	<3.4	41	75	6
Total Cadmium	mg/kg	0.66	39	85	6
Total Chromium	mg/kg	7.17	1200	3000	6
Total Copper	mg/kg	189	1500	4300	6
Total Lead	mg/kg	13.0	300	840	6
Total Mercury	mg/kg	<3.4	17	57	6
Total Molybdenum	mg/kg	5.46	18	75	6
Total Nickel	mg/kg	6.14	420	420	6
Total Selenium	mg/kg	<3.4	36	100	6
Total Zinc	mg/kg	674	2800	7500	6

B. ADDITIONAL MONITORING FOR LAND APPLICATION

Total Kjeldahl Nitrogen	mg/kg				
Total Phosphorus as P	mg/kg				
Total Potassium as K	mg/kg				

If more than 2 dry tons of sludge per acre/year is applied complete following:

Organic nitrogen as N	mg/kg				
Ammonia Nitrogen as N	mg/kg				
Nitrate Nitrogen as N	mg/kg				

11. Biosolids storage ✓ Yes ___ No

12. Application rates ✓ Yes ___ No

13. Application equipment ✓ Yes ___ No

14. Soil pH limitations ✓ Yes ___ No

15. Soil phosphorus limitations ✓ Yes ___ No

16. Soil depth limitations ✓ Yes ___ No

17.. Record keeping ✓ Yes ___ No

If No, attach sheet with explanation.

3.33 Class A Sludge (Per WQ 424 guide - Biosolids Standards for pathogens and vectors)

Does the sludge meet Class A pathogen reduction? ___ Yes ✓ No

Has Class A sludge been applied to public use sites? ___ Yes ✓ No

If yes to the second question in 3.33, contact DNR.

3.40 Operational Standards for Class B Biosolids (see WQ 424)

___ Class B pathogen reduction requirements were met by either fecal coliform limits under section 2D or a PSRP listed in WQ 424, Table 2. Attach supporting data and indicate process option used.

___ Class B pathogen requirements not currently met; Attach explanation and schedule of compliance.

3.41 Vector Attraction reduction requirements were met. ✓ Yes ___ No

3.50 Monitoring Frequency (Per WQ 424 - Monitoring Requirements for Biosolids Land Application)

Attach a summary of the monitoring results on Form SA

3.51 Sludge testing for metals was performed:

✓ once/year ___ once/6 months

___ once/quarter ___ once/month

___ once/week ___ once/100 dry tons removed from lagoon.

___ Other, specify _____

3.52 Permittee is required to have an approved pretreatment program.

___ Yes ✓ No If yes attach Form SB.

3.53 Total Solids testing was performed at least once per day during land application periods?

✓ Yes ___ No If No, attach explanation.

3.54 Nitrogen testing was performed per the frequency in WQ 423. This frequency is 1 PER YEAR.

✓ Yes ___ No If No, attach explanation.

3.20 Pollutant Limitations

3.21 Are metals within the ceiling concentration limit?

✓ Yes ___ No If no, attach explanation sheet.

3.22 Are metals within the low metals concentrations and the total of all sludge applications to date (including previous years) have not exceeded 500 dry tons/acre?

✓ Yes ___ No Attach list of sites using Form SC.

3.23 If you answered "No" to 3.22, complete the following.

Have metals application rates reached any of the cumulative metals loadings? This is based on contributions from all historical sludge loadings, including industrial sludges.

___ Yes ___ No Attach a list of sites using Form SD.

Soil test results for metals may be used if historical use is not known. Test metals concentration in parts per million (ppm) dry weight for the top six inches of soil and calculate pounds per acre as follows:

ppm (dry wt) in soil x 2 = pounds per acre for 6" soil depth.

3.30 Management Practices

3.31 Nitrogen Limitations

Which of the following nitrogen approaches was used:

Sludge applied up to 2 dry tons/acre/year? ✓ Yes ___ No

Plant Available Nitrogen (PAN) approach? ___ Yes ___ No

_____ number of composite samples. Results for PAN in mg/kg dry weight and pounds per dry ton of sludge (lb/dt) [lb/dt = 0.002 x mg/kg]:

	Average	Minimum	Maximum
PAN	_____mg/kg	_____mg/kg	_____mg/kg
PAN	_____lb/dT	_____lb/dT	_____lb/dT

3.32 Have sludge applications complied with the following management practices as listed in the University of Missouri WQ 426 guide, Best Management Practices for Biosolids Land Application?

1. No discharge of biosolids from application site	✓ Yes	___ No
2. Public contact sites restriction	✓ Yes	___ No
3. Crop restrictions	✓ Yes	___ No
4. Harvest and grazing restictions	✓ Yes	___ No
5. Threatened or endangered species protection	✓ Yes	___ No
6. Nitrogen limitations	✓ Yes	___ No
7. Buffer zones	✓ Yes	___ No
8. Slope limitations for application sites	✓ Yes	___ No
9. Storm water runoff	✓ Yes	___ No
10. Frozen, snow-covered or saturated soil conditions	✓ Yes	___ No

3.55 Total phosphorus and total potassium were tested at the same frequency required for metals as indicated in WQ 423.

✓ Yes ___ No If No, attach explanation.

3.56 Soil testing for pH and Cation Exchange Capacity (CEC) and available phosphorus has been conducted within the last five years.

✓ Yes ___ No If No, attach explanation.

3.57 Was any additional sludge or soil testing required under the special conditions section of your water pollution control (NPDES) permit?

___ Yes ✓ No If yes, attach a summary using Form SB.

Permit No: MO-108162 Report Period: Calendar Year 2005

Facility Name: Rockaway Beach W.W.T.P.

3.60 CERTIFICATION FOR LAND APPLICATION

Check all that apply.

I certify under penalty of law that:

✓ records on testing, and pollutant loadings, as listed above in Section 2, have been kept in accordance with 40 CFR 503.17.

✓ the management practices, as listed above in Section 2, have been met in accordance with 40 CFR 503.14.

✓ the Class B pathogen requirements and the site restrictions, as listed above in Section 2, have been met in accordance with 40 CFR 503.15 and 503.32.

✓ one of the vector attraction requirements, as listed above in Section 2, have been met in accordance with 40 CFR 503.15 and 503.33.

This determination has been made under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information used to determine these requirements have been met. I am aware that there are significant penalties for false certification, including the possibility of fine and imprisonment.

Edwin R. Godfrey
Name

PLANT operator
Official Title

Edwin R. Godfrey
Signature

Apr. 25, 2006
Date

CaSi
CONSULTING ANALYTICAL SERVICES INTERNATIONAL, INC.
2804 EAST BATTLEFIELD • SPRINGFIELD, MISSOURI 65804-4014 • 417.882.1017 • 417.882.1018

CITY OF ROCKAWAY BEACH
Re: CaSi File/Case/Log: 0289/054267-4275/1910, 1911
Sludge Sample Collected: 12-29-05, 10:45-11:00
Sample Received: 12-29-05, 13:10

PARAMETER	METHOD	WET WEIGHT VALUE mg/kg	DRY WEIGHT VALUE mg/kg	DRY WEIGHT VALUE lbs/ ton
ARSENIC, total	EPA 200.7	<0.1	<3.4	<0.007
CADMIUM, total	EPA 200.7	0.02	0.68	0.001
CHROMIUM, total	EPA 200.7	0.21	7.17	0.01
COPPER, total	EPA 200.7	5.53	189	0.38
LEAD, total	EPA 200.7	0.38	13.0	0.03
MERCURY, total	EPA 245.1	<0.1	<3.4	<0.007
MOLYBDENUM, total	EPA 200.7	0.16	5.46	0.01
NICKEL, total	EPA 200.7	0.18	6.14	0.01
SELENIUM, total	EPA 200.7	<0.1	<3.4	<0.007
ZINC, total	EPA 200.7	19.9	679	1.4
TOTAL KJELDAHL NITROGEN	EPA 351.3	957	32700	65
AMMONIA as NITROGEN	EPA 350.2	59.7	2040	4.1
ORGANIC NITROGEN	Calculation	897	30600	61
NITRATE/NITRITE as NITROGEN	EPA 353.3	0.3	10.2	0.02
TOTAL PHOSPHORUS as P	EPA 365.2	697	23800	48
TOTAL POTASSIUM	EPA 200.7	119	4060	8
PLANT AVAILABLE NITROGEN	Calculation	222	7560	15

PARAMETER	METHOD	WET WEIGHT CFU/g	DRY WEIGHT CFU/g
FECAL COLIFORM Geometric Mean of 7 Samples	SM 9222 D	53900	1840000

PARAMETER	METHOD	PERCENT
PERCENT SOLIDS	EPA 160.3	2.93
VOLATILE PERCENT OF SOLIDS	Calculation	76.79
PERCENT ASH	EPA 160.4	0.68

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2804 EAST BATTLEFIELD • SPRINGFIELD, MISSOURI 65804-4014 • 417.882.1017 • 417.882.1018

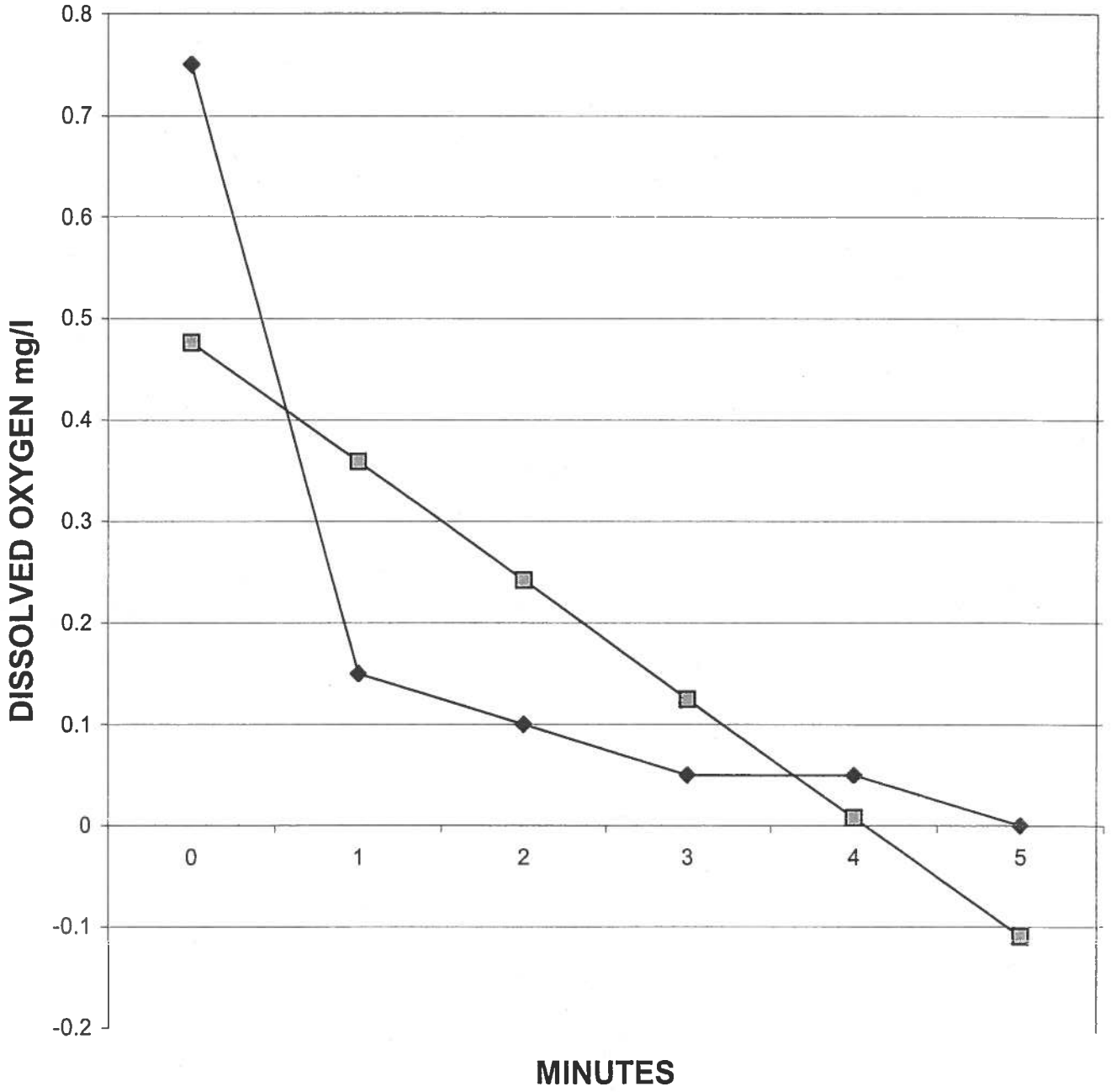
CITY OF ROCKAWAY BEACH
Re: CaSi File/Case/Log: 0289/054267-4275/1910, 1911
Samples Received: 12-29-05, 13:10

CONTROL NUMBER		054275	FLAG	UNITS	ANALYSIS DATE	ANALYSIS TIME
SAMPLE DESCRIPTION		EFFLUENT 12-29-05 12:15				
PARAMETER	METHOD					
TOTAL PHOSPHORUS as P	EPA 365.2	5.19		mg/l	01-17-06	16:12

CONSULTING ANALYTICAL SERVICES INTERNATIONAL, INC.
2804 EAST BATTLEFIELD • SPRINGFIELD, MISSOURI 65804-4014 • 417.882.1017 • 417.882.1018

Specific Oxygen Uptake Rate (SOUR)

City of Rockaway Beach 0289/054267/1910
< 0.10 milligrams/gram/hour



Attachment 9

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101

09 OCT 2007

Date:

Subject: Transmittal of Sample Analysis Results for ASR #: 3592

Project ID: WJF0734

Project Description: Rockaway Beach WWTF

From: Daksha Dalal, Acting Director Daksha P Dalal 10/10/07
Regional Laboratory, Environmental Services Division

To: Joe Joslin
ENSV/EMWC

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

ASR Number: 3592 **Summary of Project Information** **10/05/2007**

Project Manager: Joe Joslin **Org:** ENSV/EMWC **Phone:** 913-551-7132
Project ID: WJF0734
Project Desc: Rockaway Beach WWTF
Location: Rockaway Beach **State:** Missouri **Program:** Water Enforcement
Purpose: Compliance Monitoring **GPRA PRC:** 501E50C

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample
FB = Field Blank

Units: Specific units in which results are reported.

Deg C = Degrees Celsius
MGD = Million Gallons per Day
SU = Standard Units (pH)
mg/L = Milligrams per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.
J = The identification of the analyte is acceptable; the reported value is an estimate.
U =. The analyte was not detected at or above the reporting limit.

ASR Number: 3592 **Sample Information Summary** **10/05/2007**

Project ID: WJF0734 **Project Desc:** Rockaway Beach WWTF

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
11 -	__	Water	Effluent sample		09/11/2007	13:50			09/12/2007
12 -	__	Water	Effluent sample		09/10/2007	13:00	09/11/2007	13:45	09/12/2007
13 -	__	Water	Effluent sample		09/12/2007	13:30			09/13/2007
14 -	__	Water	Effluent sample		09/11/2007	14:10	09/12/2007	13:25	09/13/2007
15 -	__	Water	Effluent sample		09/13/2007	13:20			09/14/2007
16 -	__	Water	Effluent sample		09/12/2007	13:35	09/13/2007	13:15	09/14/2007
21 -	FB	Water	Preservative Blank sample		09/11/2007	14:00			09/12/2007

ASR Number:3592 **RLAB Approved Analysis Comments** **10/05/2007**

Project ID:WJF0734 **Project Desc** Rockaway Beach WWTF

Analysis	Comments About Results For This Analysis

1 Ammonia in Water by Automated Distillation

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3133.1F

Samples: 11-__ 12-__ 13-__ 14-__ 15-__ 16-__ 21-FB

Comments:

1 BOD5 in Water by DO Probe

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3153.1D

Samples: 12-__ 14-__ 16-__

Comments:
(N/A)

1 Flow, Million Gallons per Day

Lab: (Field Measurement)

Method: Measurement of field parameter

Samples: 12-__ 14-__ 16-__

Comments:
(N/A)

1 NFS or Nonfilterable Solids

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3142.3C

Samples: 12-__ 14-__ 16-__

Comments:
(N/A)

1 Nitrogen, Nitrate+Nitrite in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3133.2G for acidified samples (for total NO3+NO2 analysis).

Samples: 12-__ 14-__ 16-__ 21-FB

Comments:
Nitrate + Nitrite was J-coded in sample 14. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike duplicate. The actual concentration for this analyte may be slightly higher than the reported value.

Analysis	Comments About Results For This Analysis

Recovery for the matrix spike was at 95%, so there may have been error in spiking the duplicate.

1 pH of Water by Field Measurement

Lab: (Field Measurement)

Method: Measurement of field parameter

Samples: 11-__ 13-__ 15-__

Comments:
(N/A)

1 Temperature of Water by Field Measurement

Lab: (Field Measurement)

Method: Measurement of field parameter

Samples: 11-__ 13-__ 15-__

Comments:
(N/A)

1 Total Kjeldahl Nitrogen in Water Colorimetric

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3133.3E

Samples: 12-__ 14-__ 16-__ 21-FB

Comments:

1 Total Phosphorus in Water, Colorimetric

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3133.4D

Samples: 11-__ 12-__ 13-__ 14-__ 15-__ 16-__ 21-FB

Comments:
(N/A)

ASR Number: 3592 **RLAB Approved Sample Analysis Results** **10/05/2007**

Project ID: WJF0734 **Project Desc:** Rockaway Beach WWTF

Analysis/ Analyte	Units	11-__	12-__	13-__	14-__
1 Ammonia in Water by Automated Distillation					
Ammonia as Nitrogen	mg/L	11.3	11.3	11.0	10.5
1 BOD5 in Water by DO Probe					
BOD5	mg/L		9.1		7.7
1 Flow, Million Gallons per Day					
Flow (MGD)	MGD		0.153		0.151
1 NFS or Nonfilterable Solids					
Solids, nonfilterable	mg/L		4.8		4.3
1 Nitrogen, Nitrate+Nitrite in Water					
Nitrate + Nitrite as Nitrogen	mg/L		0.381		0.081 J
1 pH of Water by Field Measurement					
pH	SU	7.47		7.04	
1 Temperature of Water by Field Measurement					
Temperature	Deg C	25.6		26.5	
1 Total Kjeldahl Nitrogen in Water Colorimetric					
Total Kjeldahl Nitrogen	mg/L		17.5		15.6
1 Total Phosphorus in Water, Colorimetric					
Phosphorus	mg/L	1.57	1.57	1.27	1.29

ASR Number: 3592 **RLAB Approved Sample Analysis Results** **10/05/2007**

Project ID: WJF0734 **Project Desc:** Rockaway Beach WWTF

Analysis/ Analyte	Units	15-__	16-__	21-FB
1 Ammonia in Water by Automated Distillation				
Ammonia as Nitrogen	mg/L	11.6	11.6	0.10 U
1 BOD5 in Water by DO Probe				
BOD5	mg/L		4.2	
1 Flow, Million Gallons per Day				
Flow (MGD)	MGD		0.148	
1 NFS or Nonfilterable Solids				
Solids, nonfilterable	mg/L		4.0 U	
1 Nitrogen, Nitrate+Nitrite in Water				
Nitrate + Nitrite as Nitrogen	mg/L		0.058	0.030 U
1 pH of Water by Field Measurement				
pH	SU	7.24		
1 Temperature of Water by Field Measurement				
Temperature	Deg C	26.3		
1 Total Kjeldahl Nitrogen in Water Colorimetric				
Total Kjeldahl Nitrogen	mg/L		16.6	0.20 U
1 Total Phosphorus in Water, Colorimetric				
Phosphorus	mg/L	0.93	0.94	0.10 U